Appl. No. 10/596,264 Examiner: Elallam, Ahmed Amdt, dated 01/29/2010

Reply to Office action of 10/29/2009

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

 (currently amended) A method for providing packet-based tandem free operation (TFO) in a telecommunications system having at least a first network element, a third network element, and a second network element positioned between the first and third network elements, the method comprising:

monitoring packets sent from the first network element to the third network element to identify a TFO request message;

monitoring packets sent from the third network element to the first network element to identify a TFO acknowledgement message from the third network element in response to the TFO request message;

sending a <u>substitute</u> TFO acknowledgement message from the second network element to the first network element if no TFO acknowledgement message is identified from the third network element: and

establishing a TFO call leg between the first and second network elements and establishing a non-TFO call leg between the second and third network elements after sending the substitute [[a]] TFO acknowledgement message from the second network element.

2. (currently amended) The method of claim 1 further comprising:

determining whether a timeout period has elapsed without identifying the TFO acknowledgement message from the third network element; and

sending the <u>substitute</u> TFO acknowledgement message from the second network element only if the timeout period has elapsed.

- 3. (original) The method of claim 2 further comprising starting the timeout period after identifying the TFO request message.
- 4. (original) The method of claim 3 further comprising setting the timeout period to a predefined period of time prior to starting the timeout period.
- 5. (original) The method of claim 3 wherein the second network entity is a media gateway.

Appl. No. 10/596,264 Amdt. dated 01/29/2010 Reply to Office action of 10/29/2009

6. (original) The method of claim 1 wherein the TFO call leg includes the use of enhanced TFO (eTFO).

Examiner: Elallam, Ahmed

- 7. (original) The method of claim 1 further comprising establishing a non-TFO call if no TFO request message is identified.
- 8. (original) The method of claim 1 further comprising establishing an end-to-end TFO call if a TFO acknowledgement message is identified from the third network element.
- 9. (currently amended) A method for providing packet-based tandem free operation (TFO) in a telecommunications system having at least a first media gateway positioned between a first device configured for TFO capability and a second device not configured for TFO capability, the method comprising:

monitoring packets sent from the first device to the second device to identify a TFO request, wherein the monitoring is performed by the media gateway;

monitoring packets sent from the second device to the first device to identify a TFO acknowledgement sent in response to the TFO request, wherein the monitoring is performed by the media gateway;

sending a <u>substitute</u> TFO acknowledgement from the media gateway to the first device if no TFO acknowledgement is identified from the second device; and

establishing a first leg between the first device and the media gateway using TFO and establishing a second leg between the media gateway and second device without using TFO after sending a TFO acknowledgement from the media gateway.

- 10. (original) The method of claim 9 further comprising: determining whether a timeout period has elapsed without identifying the TFO acknowledgement from the second device; and sending the TFO acknowledgement from the media gateway only if the timeout period has elapsed.
- 11. (original) The method of claim 10 further comprising starting the timeout period after identifying the TFO request.
- 12. (original) The method of claim II further comprising setting the timeout period to a predefined period of time prior to starting the timeout period.
- 13. (original) The method of claim 9 further comprising establishing a non-TFO call if no TFO request is identified.

Appl. No. 10/596,264 Examiner: Elallam, Ahmed Amdt, dated 01/29/2010

Reply to Office action of 10/29/2009

14. (currently amended) The method of claim 9 further comprising establishing an end-to-end TFO call if the substitute [[a]] TFO acknowledgement is identified from the second device.

- 15. (currently amended) A system for providing packet-based tandem free operation (TFO), the system comprising:
- a first media gateway coupled to a <u>Base Station Controller (BSC)</u> transcoder rate adaption unit (TRAU) having TFO capabilities and a network entity not capable of supporting TFO; and
 - a plurality of software instructions executable by the system, the instructions including:

instructions for monitoring packets sent from the <u>BSC</u> TRAU to the network entity to identify a TFO request:

instructions for monitoring packets sent from the network entity to the <u>BSC TRAU</u> to identify a TFO acknowledgement sent in response to the TFO request;

instructions for sending a substitute TFO acknowledgement from the first media gateway to the \underline{BSC} \underline{TRAU} if no TFO acknowledgement is identified from the network entity; and

instructions for establishing a first leg between the <u>BSC TRAU</u> and the first media gateway using TFO and establishing a second leg between the first media gateway and the network entity without using TFO.

- 16. (original) The system of claim 15 further comprising at least a first mobile switching center coupled to the first media gateway.
- 17. (original) The system of claim 15 further comprising: instructions for determining whether a timeout period has elapsed without identifying the TFO acknowledgement from the network entity; and instructions for sending the TFO acknowledgement from the first media gateway only if the timeout period has elapsed.
- 18. (original) The system of claim 15 further comprising establishing a non-TFO call if no TFO request is identified.
- 19. (currently amended) The method of claim 15 [[9]] further comprising establishing an end-to-end TFO call if the substitute [[a]] TFO acknowledgement is identified from the network entity.
- 20. (currently amended) The method of claim 15 further comprising:

Appl. No. 10/596,264 Examiner: Elallam, Ahmed Amdt. dated 01/29/2010

Reply to Office action of 10/29/2009

a second media gateway positioned between the first media gateway and the network entity;

instructions for monitoring packets sent from the first media gateway to the network entity to identify a TFO request;

instructions for monitoring packets sent from the network entity to the first media gateway to identify a TFO acknowledgement;

instructions for sending a <u>substitute</u> TFO acknowledgement from the second media gateway to the first media gateway if no TFO acknowledgement is identified from the network entity; and

instructions for establishing a first leg between the first and second media gateways using TFO and establishing a second leg between the second media gateway and the network entity without using TFO after sending a TFO acknowledgement from the second media gateway.

- 21. (currently amended) A system for providing packet-based tandem free operation (TFO), the system comprising:
 - a first network element configured to include TFO capabilities;
 - a second network element not configured to include TFO capabilities;

at least a third network element positioned between the first and second network elements and configured to channel communications between the first and second network elements;

means for monitoring packets sent from the first network element to the second network element during call setup to identify a TFO request message;

means for establishing a non-TFO call if no TFO request message is identified;

means for monitoring packets sent from the second network element to the first network element to identify a TFO acknowledgement message;

means for establishing a TFO call between the first and second network entities if a TFO acknowledgement message is identified from the second network element;

means for sending a <u>substitute</u> TFO acknowledgement message from the third network element to the first network element if no TFO acknowledgement message is identified from the second network element; and

means for establishing a TFO call leg between the first and third network elements and establishing a non-TFO call leg between the second and third network elements after sending a

Appl. No. 10/596,264 Examiner: Elallam, Ahmed Amdt, dated 01/29/2010

Reply to Office action of 10/29/2009

TFO acknowledgement message from the third network element.

22. (original) The method of claim 21 further comprising: determining whether a timeout period has elapsed without identifying the TFO acknowledgement message from the second network element; and sending the TFO acknowledgement message from the third network element only if the timeout period has elapsed.